

**TRANSFER OF A THIN LAYER FROM A WAFER
COMPRISING A BUFFER LAYER**

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ABSTRACT

A process for producing a structure of a thin layer of semiconductor material obtained from a composite structure donor wafer. The donor wafer includes a lattice parameter matching layer of a matching substrate that advantageously has an upper layer of semiconductor material having a first lattice parameter. A film of semiconductor material having a second, nominal, lattice parameter that is substantially different from the first lattice parameter is strained by the matching layer. A region of weakness is created in the matching substrate to facilitate splitting. A relaxed layer has a nominal lattice parameter that is substantially identical to the first lattice parameter. The relaxed layer is transferred to a receiving substrate. A number of different wafers can be made by this process.